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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/846,555

04/30/2001

Keishi Danjo

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EXAMINER

PATEL, ASHOK

ART UNIT

PAPER NUMBER

2879

MAIL DATE

DELIVERY MODE

08/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/846,555

Applicant(s)

DANJO ET AL.

Examiner

Ashok Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,6,8-10,13-17 and 22-50 is/are pending in the application.
- 4a) Of the above claim(s) 28-34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-50 is/are allowed.
- 6) ☒ Claim(s) 5,6,8-10,13-17 and 22-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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1. It is noted that previously withdrawn claims 11, 12 and 18-21 are cancelled from the application and claims 28-34 depend upon cancelled claims 11, 12 and 18-21. Since claims 11, 12 and 18-21 were formerly withdrawn from consideration, the dependent claims 28-34 are simply withdrawn from consideration due to their dependencies on non-elected claims 11, 12 and 18-21. In view of cancellation of claims 11, 12 and 18-21, the scope of claims 28-34 could not be ascertained.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first insulating film (as recited in independent claims 5, 6, 13, 14, 22 and 24) must be shown as being disposed on an upper surface of the substrate in an area except for a partial surface area of the upper surface of the substrate must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be

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labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Newly added claims 35-50 are in condition for allowance since these claims are formerly dependent claims, which were allowable over the prior art but were objected to as being dependent upon rejected base claims.

4. As to claims 5, 6, 8-10, 13-17 and 22-27, applicant's arguments with respect to these claims 5, 6, 8-10, 13-17 and 22-27 have been considered but are moot in view of the new ground(s) of rejection.

5. Claims 5, 6, 8-10, 13-17 and 22-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The original disclosure/specification does not provide a support for the limitation "the first insulating film being disposed on an upper surface of the substrate in an area except for a partial surface area of the upper surface of the substrate" as now recited in amended independent claims 5, 6, 13, 14, 22 and 24.

With respect to the upper surface of the substrate, the original disclosure/specification does provide a support for the first insulating film being disposed on the entire upper surface of the substrate. It is clear from drawing Figures that the upper surface of the substrate is entirely covered with the first insulating film, not just partially covered with the first insulating film.

With respect to the amended limitations in independent claims 5, 6, 13, 14, 22 and 24, the Examiner could not find applicant's

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statement in applicant's response filed on 04/19/2007 that the original disclosure does provide a support for the amended limitations "the first insulating film being disposed on an upper surface of the substrate in an area except for a partial surface area of the upper surface of the substrate.

The Examiner therefore disregards the newly added limitation in all amended independent claims 5, 6, 13, 14, 22 and 24 and thereby maintains the previous prior art rejection of claims 5, 6, 8-10, 13-17 and 22-27 under 35 U.S.C. 102(b) as being anticipated by Endo et al (USPN 5,189,337).

6. If applicants disagrees with the Examiner's position regarding the original disclosure for not providing support for the amended limitations "the first insulating film being disposed on an upper surface of the substrate in an area except for a partial surface area of the upper surface of the substrate" as recited in amended independent claims 5, 6, 13, 14, 22 and 23, then the following rejection applies alternatively as below.

7. As to claims 5, 6, 8-10, 13-17 and 22-27, applicant's arguments with respect to these claims 5, 6, 8-10, 13-17 and 22-27 have been considered but are moot in view of the new ground(s) of rejection.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 5, 6, 8-10 and 13-17 and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo (USPN 5189337, of record).

As to claims 5, 6, 8-10 and 13-17 and 22-27, Endo et al disclose a precursor (Figures 1-2) including a substrate (3); and a first insulating film (ultrafine SiO₂ film 6) containing electrically conductive particulate metal oxide (SnO₂, InO₂, Sb₂O₃) particles (col. 3, 3rd paragraph) provided on a surface of the substrate in an area except for a partial surface area of the

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surface; and a second insulating film (4) provided on the first insulating film so as to cover the metal oxide, wherein the second insulating film includes a surface.

Applicant's claimed limitations, such as electron source, electron emitting device, supporting frame (in independent claims 5, 6, 13, 14, 22, 23), and getter (in independent claims 22 and 23) are not given patentable weight since these elements are not part of the claimed precursor.

Endo et al differ from applicant's claimed precursor in that the first insulating ultrafine SiO_2 film of Endo et al's precursor is not provided on an area except for a partial surface area of the upper surface of the substrate.

However, depending upon type of application and suitability of the precursor within an individual environment or individual device in which the precursor is to be used, the configuration of the first insulating film would be modified appropriately. For example, if the precursor were to be used within a pixel of an electron emission device, then one would have modified the first insulating film selectively so as to emit the electrons from a desired specific area of the pixel and not the entire area of the pixel etc.

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In light of this, it would have been obvious to one of ordinary skill in the art to provide Endo et al's precursor with appropriate modified, depending upon its application within specific device, so as to emit the electrons in a desired manner.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ashok Patel
Primary Examiner
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